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EXAMINER
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EHICHIOYA, FRED I

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/782,988  
Filing Date: February 13, 2001  
Appellant(s): SEKINE ET AL.

\_\_\_\_\_  
Edward A. Becker, Reg. No. 32,247  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 06/13/2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,502,576	Ramsay et al	3-1996
6,202,124	Kern et al	3-2001

Thiel, Thomas J. "Integrated CD-ROM and WORM Optical Disk Systems on the Navy's Paperless Ship" CD-ROM Professional, v5n3 (May 1992), pp. 17 – 26

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

**Claims 1 – 3, 8 – 13, 18 – 23, 28 - 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,502,576 issued to Ramsay, Thomas E. et al. (hereinafter “Ramsay”) in view of NPL “Integrated CD-ROM and WORM Optical Disk Systems on the Navy's Paperless Ship” by Thiel, Thomas J. (hereinafter “Thiel”).**

Regarding claims 1, 12 and 22, Ramsay teaches a data storage apparatus comprising:

an interface configured to receive digital data (see column 19, lines 64 – 67);  
and a data processor communicatively coupled to the interface and being configured (see column 27, lines 40 – 43 and lines 64 – 67) to:

automatically receive digital data from the interface and cause the digital data to be stored to a write-once-read-many (WORM) storage device (see column 6, lines 27 – 30, column 30, lines 22 - 24 and column 31, lines 24 – 33),

Ramsay does not explicitly teach process a search query against the digital data stored on the WORM storage device, and in response to processing the search query against the digital data stored on the WORM storage device, generate data that identifies data stored on the WORM storage device that satisfies the search query.

However, Thiel teaches process a search query against the digital data stored on the WORM storage device (see pages 18 – 19, “WORM System” and page 21, paragraphs 4 and 5 “Top Functionality and Software”), and

in response to processing the search query against the digital data stored on the WORM storage device, generate data that identifies data stored on the WORM storage device that satisfies the search query (see pages 18 – 19, “WORM System” and page 21, paragraphs 4 - 6 “Top Functionality and Software”).

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine teaching of the cited references because Thiel’s teaching of “in response to processing the search query against the digital data

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stored on the WORM storage device, generate data that identifies data stored on the WORM storage device that satisfies the search query” would have led Ramsay’s system toward a paperless environment and improve the management of information as suggested by Thiel (see Abstract).

Regarding claim 2, Ramsay teaches a WORM storage device (see column 30, lines 22 – 24).

Regarding claims 3, 13 and 23, Thiel teaches the data processor is further configured to generate one or more indexes for data stored to the WORM storage device (see page 18, paragraph 6).

Regarding claims 8, 18 and 28, Ramsay teaches the digital data includes facsimile data (see column 21, lines 44 – 45).

Regarding claims 9, 19 and 29, Ramsay teaches the digital data includes electronic document data (see column 29, line 53).

Regarding claims 10, 20 and 30, Ramsay teaches the digital data includes printer data (see column 25, lines 39 – 44).

Regarding claims 11, 21 and 31, Ramsay teaches the data is stored on an WORM optical medium (see column 30, lines 22 – 24), and the data processor is further configured to cause a label to be applied to the WORM optical medium, wherein the label specifies one or more attributes of the data (see column 14, line 64; column 30, lines 23 –24 and lines 58 – 62).

**Claims 4, 6, 7, 14, 16, 17, 24, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramsay in view of Thiel and further in view U.S. Patent 6,202,124 issued to Kern Robert Frederick (hereinafter “Kern”).**

Regarding claims 4, 14 and 24, Ramsay or Moon does not explicitly teach “meta data”.

Kern teaches the data processor is further configured to generate meta data that describes one or more attributes of the data stored to the WORM storage device (see column 3, lines 20 – 23 and column 7, lines 1 – 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching Kern with the teaching of Ramsay and Moon wherein processor is further configured to generate Meta data that describes one or more attributes of the data stored to the WORM. The motivation is that the Meta data contain definitions and versions of the digital data stored on the WORM.

Regarding claims 6, 16 and 26, Kern teaches the data processor is further configured to process the search query against one or more indexes generated by the data processor (see column 6, lines 48 – 52).

Regarding claims 7, 17 and 27, Kern teaches the data processor is further configured to automatically process the search query according to a set of one or more time criteria (see column 6, lines 48 – 56 and column 8, lines 16 - 20).

#### **(10) Response to Argument**

##### **A. Introduction**

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Regarding appellants' argument based on MPEP § 2143.03, that Ramsay and Thiel, considered alone or in combination, do not teach or suggest all limitations of claims 1 – 3, 8 – 13, 18 – 23 and 28 – 31 as in page 3, the examiner respectfully traverses this argument because all of the claimed limitations were taught by the prior arts, and each of the terms of the claims were considered and matched as declared in section **(9) Grounds of Rejection** above. Further the proffered factual evidence can be

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found on the cited lines and column/pages and paragraphs of the prior arts. In this case, combining the teaching of Thiel with teaching of Ramsay would have led Ramsay's system to paperless environment and improve the management of information.

Regarding appellants' argument that Ramsay, Thiel and Kern, considered alone or in combination, do not teach or suggest all limitations of claims 4, 6, 7, 14, 16, 17, 24, 26 and 27 as in page 4, the examiner submits that Ramsay, Thiel and Kern teach claims 4, 6, 7, 14, 16, 17, 24, 26 and 27 as declared in section **(9) Grounds of Rejection** above. Further the proffered factual evidence can be found on the cited lines and column/pages and paragraphs of the prior arts. In this case, combining the teaching of Kern with the teaching of Ramsay and Thiel would have led Ramsay and Thiel's system to incorporated metadata that contain definitions and versions of the digital data stored on the WORM. Definitions and versions provide the insight of the digital data stored on the WORM.

**B. Response to Appellants' Argument regarding claims 1 – 3, 8 –13, 18 –23, and 28 – 31 rejected under 35 U.S.C. 103**

Examiner respectfully traverses the presumptions of the appellants that claims 1 –3, 8 – 13, 18 – 23 and 28 - 31 are patentable over Ramsay and Thiel for at least the reasons set forth in the response to appellants' argument provided hereinafter. Examiner submits that the rejections for claims 1 –3, 8 – 13, 18 – 23 and 28 - 31 as declared in section **(9) Grounds of Rejection** above in addition to the response to appellants' arguments provided hereinafter should be sustained.

(i) In response to appellants' argument that Ramsay and Thiel, considered alone or in combination, do not teach or suggest ***a data storage apparatus that includes a data processor configured to "in response to processing the search query against the digital data stored on the WORM storage device, generate data that identifies data stored on the WORM storage device that satisfies the search query"*** as argued on page 4;

Examiner respectfully traverses this argument. Firstly, examiner submits that Microsoft Computer Dictionary 5<sup>th</sup> edition pages 574 - 575 define WORM as "a type of optical disc that can be read and reread but cannot be altered after it has been recorded". Secondly the Office Action mailed March 11, 2005 refers the applicants to the pages and sections of Thiel (pages 18 – 19, section "WORM System" and page 21, section "Top Functionality and Software", paragraphs 4 and 5) that address the part of Claim 1 applicants argued. As to identifying particular features or functionality in the description of WORM system or TOPS that are considered to teach or suggest the section of Claim 1 limitation applicants argue, Examiner states below:

Ramsay teaches data storage apparatus (Title and Abstract) and data processor (column 27, lines 40 – 43).

Thiel teaches ***in response to processing the search query against the digital data stored on the WORM storage device*** (Examiner interprets "search to locate and retrieve a scanned document from optical disk" as "in response to processing the search query against the digital data stored on the WORM storage device" - page 21, section "TOPS FUNCTIONALITY AND SOFTWARE", paragraph 3), ***generate data that identifies data stored on the WORM storage device that satisfies the search query*** (Examiner interprets

“when a hard copy of a completed form is needed, the software obtains the blank form image from the WORM optical disk and couples it with the data from the database to print the completed form” as “generate data that identifies data stored on the WORM storage device that satisfies the search query” - page 21, section “TOPS FUNCTIONALITY AND SOFTWARE”, paragraph 3: ***“Completed forms” are data stored on the WORM storage device and “print the completed form” is “generate data that identifies data stored on the WORM”.***

(ii) Claims 2- 3 and 8 –11.

Examiner respectfully traverses the presumptions of the appellants that claims 2 –3 and 8 – 11 are patentable over Ramsay and Thiel as argued on page 7. Examiner rejected these claims as declared in section ***(9) Grounds of Rejection*** above. Since claims 2 –3 and 8 – 11 depend from claim 1 and for at least the response to argument (i) above, examiner submits that these rejections should be sustained.

(iii) Claims 12 –13 and 18 – 21.

Claims 12 – 13 and 18 – 21 include limitations similar to Claims 1, 3, 4 and 6 – 11, except in the context of a method for storing data. Examiner respectfully traverses the presumptions of the appellants that claims 12 – 13 and 18 – 21 are patentable over Ramsay and Thiel as argued on page 7. Examiner submits that the rejections for claims 12 – 13 and 18 – 21 as declared in section ***(9) Grounds of Rejection*** above in addition

to the response to appellants' arguments set forth herein with respect to claims 1, 3, 4 and 6 – 11 should be sustained.

(iv) Claims 22 –23 and 28 – 31.

Claims 22 –23 and 28 – 31 include limitations similar to Claims 1, 3, 4 and 6 – 11, except in the context of computer-readable media for storing data. Examiner respectfully traverses the presumptions of the appellants that claims 22 –23 and 28 – 31 are patentable over Ramsay and Thiel as argued on page 7. Examiner submits that the rejections for claims 22 –23 and 28 – 31 as declared in section **(9) Grounds of Rejection** above in addition with the response to appellants' arguments set forth herein with respect to claims 1, 3, 4 and 6 – 11 should be sustained.

**C. Response to Appellants' Argument regarding claims 4, 6, 7, 14, 16, 17, 24, 26 and 27 rejected under 35 U.S.C. 103**

Examiner respectfully traverses the presumptions of the appellants that claims 4, 6 – 7, 14, 16 – 17, 24, 26 and 27 are patentable over Ramsay, Thiel and Kern for at least the reasons set forth in the response to appellants' argument provided hereinafter. Examiner submits that the rejections for claims 4, 6 – 7, 14, 16 – 17, 24, 26 and 27 as declared in section **(9) Grounds of Rejection** above in addition to the response to appellants' arguments provided hereinafter should be sustained.

(i) Claims 4, 6 and 7.

Claims 4, 6 and 7 all depend from claim 1 and include all of the limitations of claim 1. As argued by the appellants on page 8 that *Ramsay and Thiel do not teach or suggest one or more limitations required by claim 1. It is also respectfully submitted that these limitations are not taught or suggested by Kern. For example, it is respectfully submitted that Kern does not teach or suggest a data storage apparatus that includes a data processor configured to “in response to processing the search query against the digital data stored on the WORM storage device, generate data that identifies data stored on the WORM storage device that satisfies the search query”*

Examiner respectfully traverses this argument. Please refer to response to argument “**B (i)**” above that addresses this argument.

(ii) Claims 14, 16 and 17.

Claims 14, 16 and 17 recite limitations similar to Claims 4, 6 and 7, except in the context of a method claims. Examiner respectfully traverses the presumptions of the appellants that claims 14, 16 and 17 are patentable over Ramsay, Thiel and Kern as argued on page 9. Examiner submits that the rejections for claims 14, 16 and 17 as declared in section **(9) Grounds of Rejection** above in addition to the response to appellants’ arguments set forth herein with respect to claims 4, 6 and 7 should be sustained.

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(iii) Claims 24, 26 and 27.

Claims 24, 26 and 27 recite limitations similar to Claims 4, 6 and 7, except in the context of a method claims. Examiner respectfully traverses the presumptions of the appellants that claims 24, 26 and 27 are patentable over Ramsay, Thiel and Kern as argued on page 9. Examiner submits that the rejections for claims **24, 26 and 27** as declared in section **(9) Grounds of Rejection** above in addition to the response to appellants' arguments set forth herein with respect to claims 4, 6 and 7 should be sustained.

For the above reasons, it is believed that the rejections should be sustained.



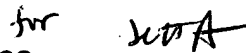
Examiner Fred Ehichioya

January 6, 2006

Respectfully submitted,

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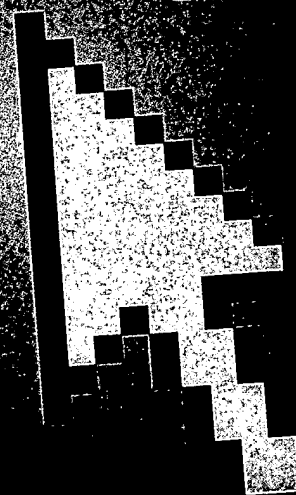
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the program and the equipment in use, word processors can display documents either in text mode (using highlighting, underlining, or color to represent italics, boldfacing, and other such formatting) or in graphics mode (in which formatting and, sometimes, a variety of fonts appear on the screen as they will on the printed page). All word processors offer at least limited facilities for document formatting, such as font changes, page layout, paragraph indentation, and the like. Some word processors can also check spelling, find synonyms, incorporate graphics created with another program, align mathematical formulas, create and print form letters, perform calculations, display documents in multiple on-screen windows, and enable users to record macros that simplify difficult or repetitive operations. *Compare* editor, line editor.

**wordwrap** or **word wrap** *n.* The ability of a word processing program or a text-editing program to break lines of text automatically to stay within the page margins or window boundaries of a document without the user having to do so with carriage returns, as is typically necessary when using a typewriter. *See also* hard return, soft return.

**workaround** *n.* A tactic for accomplishing a task despite a bug or other inadequacy in software or hardware without actually fixing the underlying problem. *See also* kludge.

**workbook** *n.* In a spreadsheet program, a file containing a number of related worksheets. *See also* worksheet.

**workflow application** *n.* A set of programs that aids in the tracking and management of all the activities in a project from start to finish.

**workgroup** *n.* A group of users working on a common project and sharing computer files, typically over a LAN (local area network). *See also* groupware.

**workgroup computing** *n.* A method of working electronically in which various individuals on the same project share resources and access to files using a network arrangement, such as a local area network, enabling them to coordinate their separate tasks. This is accomplished through using software designed for workgroup computing. *See also* groupware.

**Workplace Shell** *n.* The graphical user interface of OS/2. Like the Mac OS and Windows 95, the Workplace Shell is document-centric. Document files are displayed as icons; clicking an icon starts the corresponding application, and the user can print a document by dragging the document's icon to a printer icon. The Workplace Shell uses the graphical functions of Presentation Manager. *Acronym:* WPS.

**worksheet** *n.* In a spreadsheet program, a page organized into rows and columns appearing on screen and used for constructing a single table.

**workstation** *n.* 1. A combination of input, output, and computing hardware that can be used for work by an individual. 2. A powerful stand-alone computer of the sort used in computer-aided design and other applications requiring a high-end, usually expensive, machine with considerable calculating or graphics capability. 3. A microcomputer or terminal connected to a network.

**World Wide Web** *n.* The total set of interlinked hypertext documents residing on HTTP servers all around the world. Documents on the World Wide Web, called pages or Web pages, are written in HTML (Hypertext Markup Language), identified by URLs (Uniform Resource Locators) that specify the particular machine and pathname by which a file can be accessed, and transmitted from server to end user under HTTP (Hypertext Transfer Protocol). Codes, called tags, embedded in an HTML document associate particular words and images in the document with URLs so that a user can access another file, which may be halfway around the world, at the press of a key or the click of a mouse. These files may contain text (in a variety of fonts and styles), graphics images, movie files, and sounds as well as Java applets, ActiveX controls, or other small embedded software programs that execute when the user activates them by clicking a link. A user visiting a Web page also may be able to download files from an FTP site and send messages to other users via e-mail by using links on the Web page. The World Wide Web was developed by Timothy Berners-Lee in 1989 for the European Laboratory for Particle Physics, or Conseil Européen pour le Recherche Nucléaire, in French (CERN). *Acronym:* WWW. *Also called:* w<sup>3</sup>, W3, Web. *See also* ActiveX controls, HTML, HTTP, HTTP server (definition 2), Java applet, URL.

**World Wide Web Consortium** *n.* *See* W3C.

**worm** *n.* A program that propagates itself across computers, usually by creating copies of itself in each computer's memory. A worm might duplicate itself in one computer so often that it causes the computer to crash. Sometimes written in separate segments, a worm is introduced surreptitiously into a host system either as a prank or with the intent of damaging or destroying information. *See also* bacterium, Internet Worm, Trojan horse, virus.

**WORM** *n.* Acronym for write once, read many. A type of optical disc that can be read and reread but cannot be

altered after it has been recorded. WORMs are high-capacity storage devices. Because they cannot be erased and rerecorded, they are suited to storing archives and other large bodies of unchanging information. *See also* compact disc.

**WOSA** *n.* Acronym for Windows Open Services Architecture, also known as Windows Open System Architecture. A set of application programming interfaces from Microsoft that is intended to enable Windows-based applications from different vendors to communicate with each other, such as over a network. The interfaces within the WOSA standard include Open Database Connectivity (ODBC), the Messaging Application Programming Interface (MAPI), the Telephony Application Programming Interface (TAPI), Windows Sockets (Winsock), and Microsoft Remote Procedure Calls (RPC). *See also* MAPI, ODBC, remote procedure call, TAPI, Winsock.

**.wp** *n.* A file extension used to identify files formatted for the WordPerfect word processor.

**WP** *n.* *See* word processing.

**WPS** *n.* *See* Workplace Shell.

**WRAM** *n.* Acronym for window random access memory. A type of RAM used in video adapters. Like video RAM (VRAM), WRAM allows the screen to be repainted while a graphical image is being written, but WRAM is faster. *Compare* video RAM.

**wrap around** *vb.* To continue movement, as with the cursor or a search operation, to the beginning or to a new starting point rather than stopping when the end of a series is reached. For example, the screen cursor might wrap around to the first column of the next line rather than stopping when it reaches the last column of the current line. Likewise, a program starting a search or replace operation in the middle of a document might be instructed to wrap around to the beginning rather than stop when it reaches the end of the document.

**wrapper** *n.* In the Java programming language, an object that encapsulates and delegates to another object with the aim of altering its behavior or interface. *See also* Java, object.

**.wrl** *n.* The file format that identifies document files in the Microsoft Write format.

**wrist support** *n.* A device placed in front of a computer keyboard to support the wrists in an ergonomically neutral position, thereby safeguarding against repetitive strain injuries, such as carpal tunnel syndrome. *Also called:* wrist rest. *See also* carpal tunnel syndrome, repetitive strain injury.

**write**<sup>1</sup> *n.* A transfer of information to a storage device, such as a disk, or to an output device, such as a monitor or a printer. For example, a disk write means that information is transferred from memory to storage on disk. *See also* output<sup>1</sup>. *Compare* read<sup>1</sup>.

**write**<sup>2</sup> *vb.* To transfer information either to a storage device, such as a disk, or to an output device, such as a monitor or a printer. Writing is the means by which a computer provides the results of processing. A computer can also be said to write to the screen when it displays information on the monitor. *See also* output<sup>1</sup>. *Compare* read<sup>1</sup>.

**write access** *n.* A privilege on a computer system that allows a user to save, change, or delete stored data. Write access is usually set by the system administrator for a networked or server system and by the owner of the computer for a stand-alone machine. *See also* access privileges.

**write-back cache** *n.* A type of cache with the following feature: when changes are made to cached data, they are not simultaneously made to the original data as well. Instead, the changed data is marked, and the original data is updated when the cached data is deallocated. A write-back cache can perform more quickly than a write-through cache. But in some contexts, differences between cached and original data could lead to problems, and write-through caches must be used. *See also* cache. *Compare* write-through cache.

**write-behind cache** *n.* A form of temporary storage in which data is held, or cached, for a short time in memory before being written on disk for permanent storage. Caching improves system performance in general by reducing the number of times the computer must go through the relatively slow process of reading from and writing to disk. *See also* CPU cache, disk cache.

**write cache** *n.* *See* write-behind cache.

**write error** *n.* An error encountered while a computer is in the process of transferring information from memory to storage or to another output device. *Compare* read error.

**write mode** *n.* In computer operation, the state in which a program can write (record) information in a file. In write mode, the program is permitted to make changes to existing information. *Compare* read-only.

**write protect** *vb.* To prevent the writing (recording) of information, usually on a disk. Either a floppy disk or an individual file on a floppy disk or a hard disk can be